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UNDERGROUND STORAGE TANK CLOSURE ASSESSMENT

**BIGELOW-KARASTAN MILL
GREENVILLE, NORTH CAROLINA
TWO 20,000 GALLON FUEL OIL TANKS**

Prepared for: Fieldcrest-Cannon
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July 8, 1993

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COPY

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**Underground Storage Tank Closure Assessment
Bigelow-Karastan Mill
Greenville, North Carolina
Two 20,000 Gallon Fuel Oil Tanks**

1.0 INTRODUCTION

On May 17-18, 1993, Clean-East, Inc. excavated and removed two 20,000 gallon Underground Storage Tanks (USTs) at Fieldcrest-Cannon's Bigelow-Karastan Mill in Greenville, North Carolina (Figure 1). The two 20,000 gallon USTs (C & D in Figure 2) were located in a single pit under the parking lot on the south side of the main building, near the location of two 10,000 gallon USTs (A & B) which were removed a few days later and are the subject of a separate report. The USTs had been used to store #5 fuel oil. No soil samples were taken at the time of the UST removal.

On June 9, 1993 Pyramid Environmental conducted a UST closure assessment for the above referenced USTs. This closure assessment included observation and sampling of the excavated soils and soils from well borings to assess the possible presence of petroleum hydrocarbon contamination in the soils, and the installation and sampling of groundwater monitoring wells to assess possible groundwater contamination. Soil and groundwater samples were sent to a state certified laboratory to be analyzed for Total Petroleum Hydrocarbons (TPH). Appendix I includes the analytical laboratory report and chain-of-custody forms for this assessment.

2.0 GEOLOGY AND HYDROGEOLOGY

The site is located in Pitt County, North Carolina in the Coastal Plain geologic province. It overlies a basement of Plio-Pleistocene sedimentary rock of the Yorktown Formation, characterized by mixtures of fossiliferous fine sand, silt, and/or clay¹.

Groundwater generally flows in the direction of topographic gradient, which in this location is gentle and to the southeast (Figure 3). Measurements of water levels in groundwater monitoring wells confirmed a potentiometric gradient to the southeast.

3.0 INITIAL SITE ASSESSMENT:

After removal, USTs C & D were visually inspected by a member of the Pyramid Environmental staff for evidence of contamination sources such as corrosion, cracks, or holes. The USTs appeared to be in good condition. There was, however, significant oil staining of the soil around the tank pit. There was standing water in the bottom of the pit with a film ($<1/16$ ") of petroleum product on top. The initial site assessment indicated the possibility of groundwater contamination and it was determined that borings and groundwater sampling were necessary for adequate assessment.

4.0 STOCKPILE SAMPLING

There are two stockpiles adjacent to each other on the site property (Figure 4) which contain soil excavated both from the site of the two 20,000 gallon USTs which are the subject of this report, and from the site of two 10,000 gallon USTs nearby. On June 10, 1993, Pyramid Environmental staff collected six soil samples from varying locations and depths within each stockpile (Figure 4) using a decontaminated hand auger. Each set of six samples was composited in a clean, decontaminated bucket by hand, wearing clean, disposable plastic gloves, to obtain the composited samples SPA and SPB, which were then placed in glass jars with tight lids, labeled, and placed in an ice chest maintained at a temperature of approximately 4° Celsius. Appendix I includes copies of the chain-of-custody and of the results of the laboratory analysis for these samples.

5.0 MONITOR WELL INSTALLATION

Pyramid Environmental staff arrived at the project site on June 9, 1993. The excavation area had been backfilled with sand and gravel, and there was no visible staining in, or around the site. We chose locations for three wells, two down gradient, and one up-gradient from the UST pit (Figure 5), in accordance with North Carolina Department of Environment, Health, and Natural Resources (NCDEHNR) guidelines.

Using a hollow-stem auger, we drilled borings to depths of 20' (MW1, MW2) and 15' (MW3). After removing the rig's auger, we took soil samples using a hand auger (sample S8 from MW1, and sample S7 from MW2). The hand auger was cleaned and decontaminated with a solution of water and Alconox (a commercial-grade detergent) before each sample was taken.

A portion of each sample was placed in a clean plastic bag for testing with an Organic Vapor Meter (OVA), and the OVA readings were recorded in field notes. The remainder of the soil sample was placed in a glass jar with a tight lid, labeled, and placed in an ice chest maintained at a temperature of approximately 4° Celsius. Appendix I includes copies of the chain-of-custody and of the results of the laboratory analysis for these samples.

All three wells were cased to 15' with 2" PVC using 10' of .01" screen and 5' of riser, back-filled with filter sand, and sealed with bentonite and grout. The wells were surveyed to obtain relative elevations set to an arbitrary 100' datum. Well construction diagrams for all three wells are included in Appendix II.

6.0 SITE HYDROLOGY & GROUNDWATER SAMPLING

On June 10, 1993, Pyramid Environmental staff measured static water levels for each well in order to describe and map the surface aquifer. A potentiometric surface map with elevations relative to an arbitrary ground surface datum set at 100 feet is included with this report as Figure 6. The following table illustrates the calculations representing the height of the aquifer:

Table I				
	MW-1	MW-2	MW-3	Benchmark
Arbitrary Base Elevation=	100	100	100	100
Elevation above Ref. Pt. (Set at 100')	5.48	3.52	6.8	3.51
	94.52	96.48	93.2	96.49
Measured Depth to Water	6.32	5.26	4.47	
Relative Elevation	88.2	91.22	88.73	96.49

The benchmark is set to the nearest manhole cover on the site.

After measuring the static water levels, Pyramid Environmental staff developed the wells and obtained groundwater samples in accordance with NCDEHNR guidelines using a new plastic bailer for each well. Four 40 ml samples and one 1 lt. sample were obtained for each well. The samples were sealed tightly with no headspace, labeled and placed in an ice chest maintained at a temperature of approximately 4° Celsius. Results of the laboratory analysis and Chain of Custody forms for these samples are included in Appendix I, and Groundwater Sampling Field Notes are included in Appendix II.

7.0 LABORATORY ANALYSIS FOR SOIL SAMPLES

Site Sensitivity Evaluation (SSE), as required by the NCDEHNR Guidelines, categorizes this site as a category "E" site with a low Site Characteristics Score (<30). For such a site the Final

Cleanup Level for heavy fuels, oil, and/or grease (Method 9071) is 3000 ppm. Appendix III contains SSE forms for the site.

Soil samples, including both those from the stockpiles and those from the monitor-well borings, were analyzed for Total Petroleum Hydrocarbons (TPH) using EPA method 9071 (Heavy Fuels, Oil, & Grease). The results (summarized in Table 2) indicate that none of these samples contain concentrations of hydrocarbons above the acceptable level.

TABLE 2: Results of TPH Analysis (Method 9071) of Soil Samples.

Sample ID	S7	S8	SPA	SPB
TPH (Heavy Fuel, Oil & Grease)	10 ppm	10 ppm	880 ppm	88 ppm
Clean-up Level	3000 ppm	3000 ppm	3000 ppm	3000 ppm

8.0 LABORATORY ANALYSIS FOR GROUNDWATER SAMPLES

Groundwater samples from the three monitoring wells were analyzed using Gas Chromatography, including EPA methods 602 (Purgable Aromatics) and 625 (Semi-Volatile Organics). The results of method 602 analysis (Table 3) indicate that concentrations of all parameters are below detectable limits for all three samples.

TABLE 3: Results of Method 602 Analysis of Groundwater Samples.

PARAMETER	BLANK	MW-1	MW-2	MW-3
Benzene	ND	ND	.76*	ND
Toluene	0.62*	ND	ND	ND
Chlorobenzene	ND	ND	ND	ND
Ethylbenzene	ND	ND	.61*	ND
m-Xylene	ND	ND	ND	ND
o-Xylene	ND	ND	ND	ND
1,3-Dichlorobenzene	ND	ND	ND	ND
1,2-Dichlorobenzene	ND	ND	ND	ND
1,4-Dichlorobenzene	ND	ND	ND	ND

Units = ug/l (ppb)

ND = None Detected.

* - Detected, but below detection limit - value approximate.

Practicable Detection Limit for all parameters = 1.0 ug/l.

Results of 625 Analysis for the groundwater samples indicated undetectable or very low concentrations of all 58 targeted parameters. Table 4 summarizes the results for all parameters for which one or more of the samples showed a concentration above the detection limit. The complete results for all 58 targeted parameters is included in Appendix IV.

**TABLE 4: Results of 625 Analysis of Groundwater Samples:
Selected Targeted Parameters.**

PARAMETERS	Detection Limit	MW-1	MW-1 rerun	MW-2	MW-3
Dibutyl Phthalate	10 ug/l	ND	12 ug/l	9.1 ug/l*	11 ug/l
Bis (2-ethylhexyl) Phthalate**	10 ug/l	5.6 ug/l*	8.1 ug/l*	14 ug/l	7.7 ug/l*

ND = None Detected.

* - Detected, but below detection limit - value approximate.

** - Common laboratory contaminant.

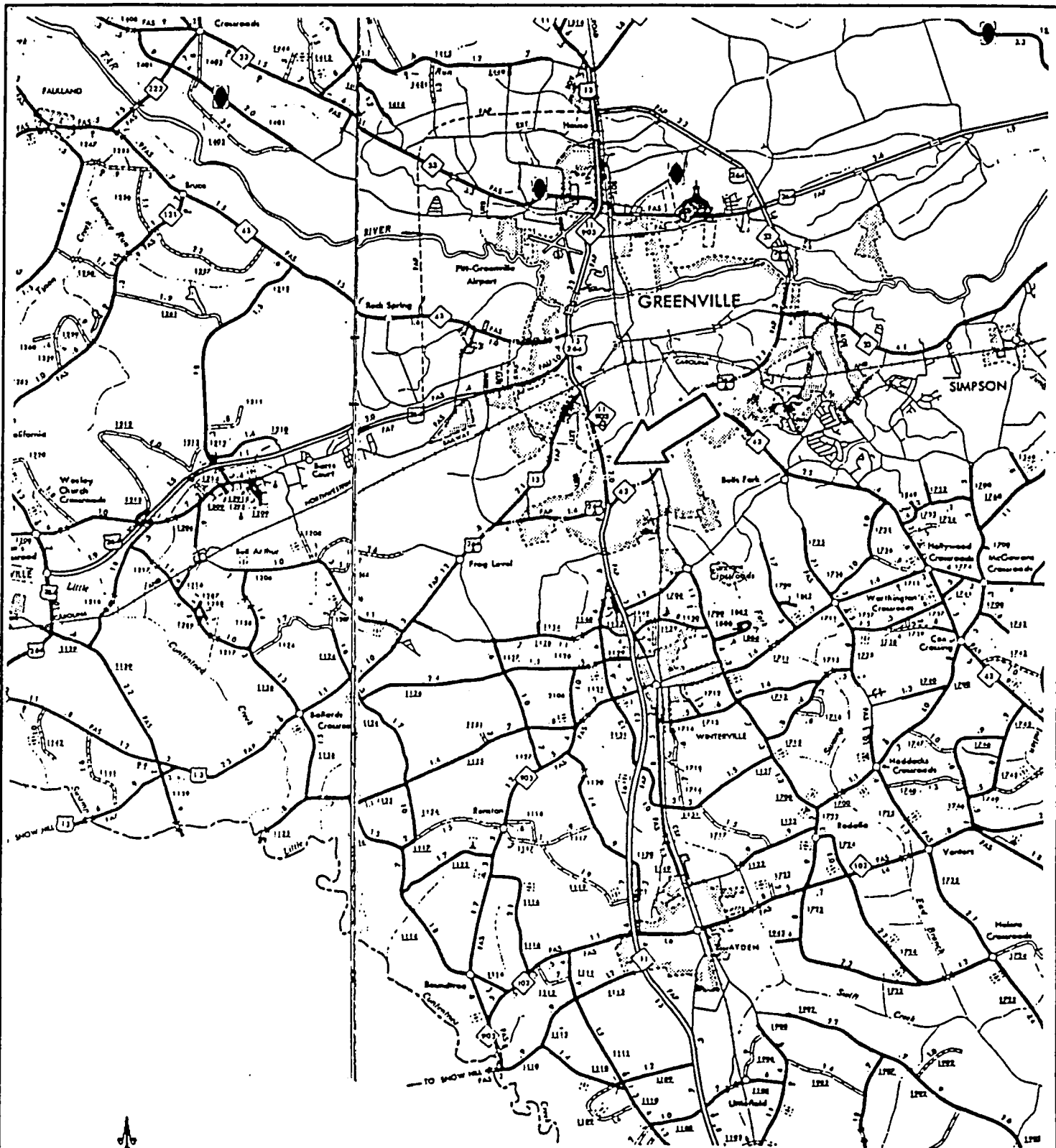
Method 625 Analysis also included identification of the highest non-targeted parameters present in the samples. None of these substances are present in significant amounts. These results may be an indication of very low-level groundwater contamination, or they may represent either field or laboratory error. Estimated concentrations of the top six non-targeted parameters for each sample are included in Appendix IV.

9.0 CONCLUSIONS / RECOMMENDATIONS

The results of the sampling and analysis of both groundwater and soil in the vicinity of the former location of two 20,000 gallon USTs indicated no significant contamination above NCDEHNR acceptable limits. No further action is recommended.

10.0 QUALIFICATIONS

Our professional services have been performed, our findings obtained and our recommendations prepared in accordance with customary principles and practices in the fields of environmental science. No other warranty, express or implied, is made as to professional opinions included in this report. Opinions and recommendations presented herein apply to site conditions existing at the time of our investigation.



SCALE: 1" = 12,500'

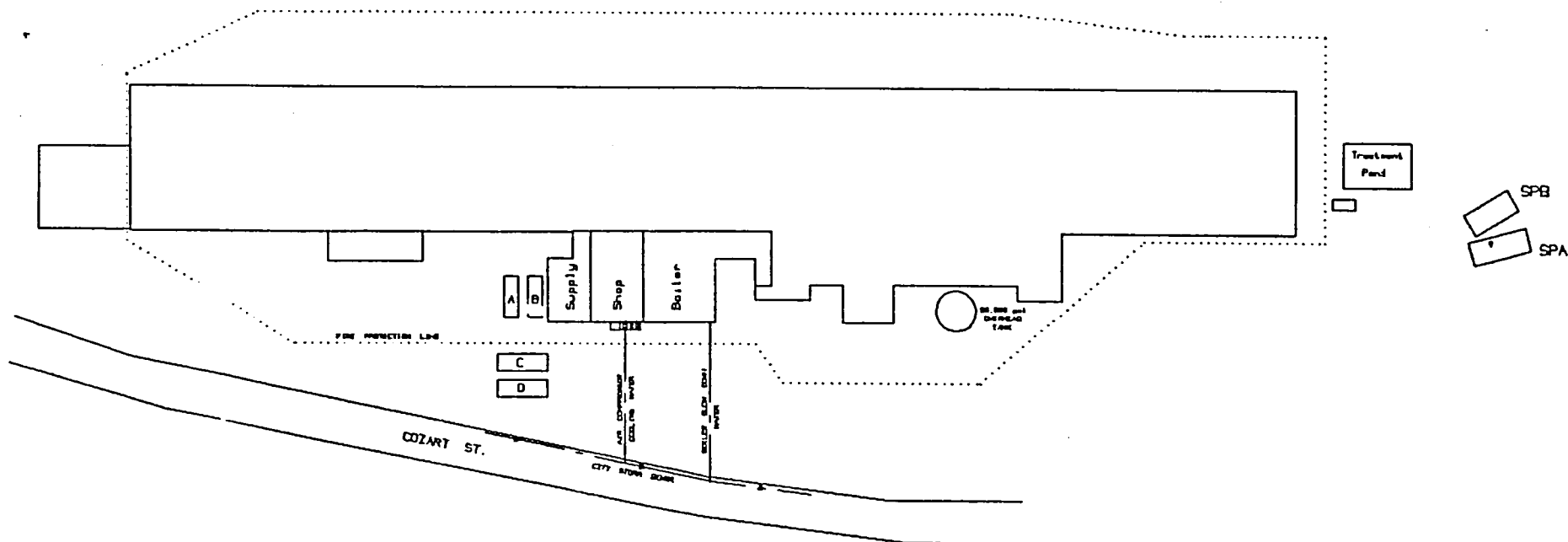
PYRAMID ENVIRONMENTAL

Fieldcrest Mill
Greenville, NC

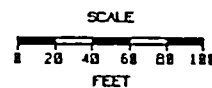
Site Location Map

July, 1993

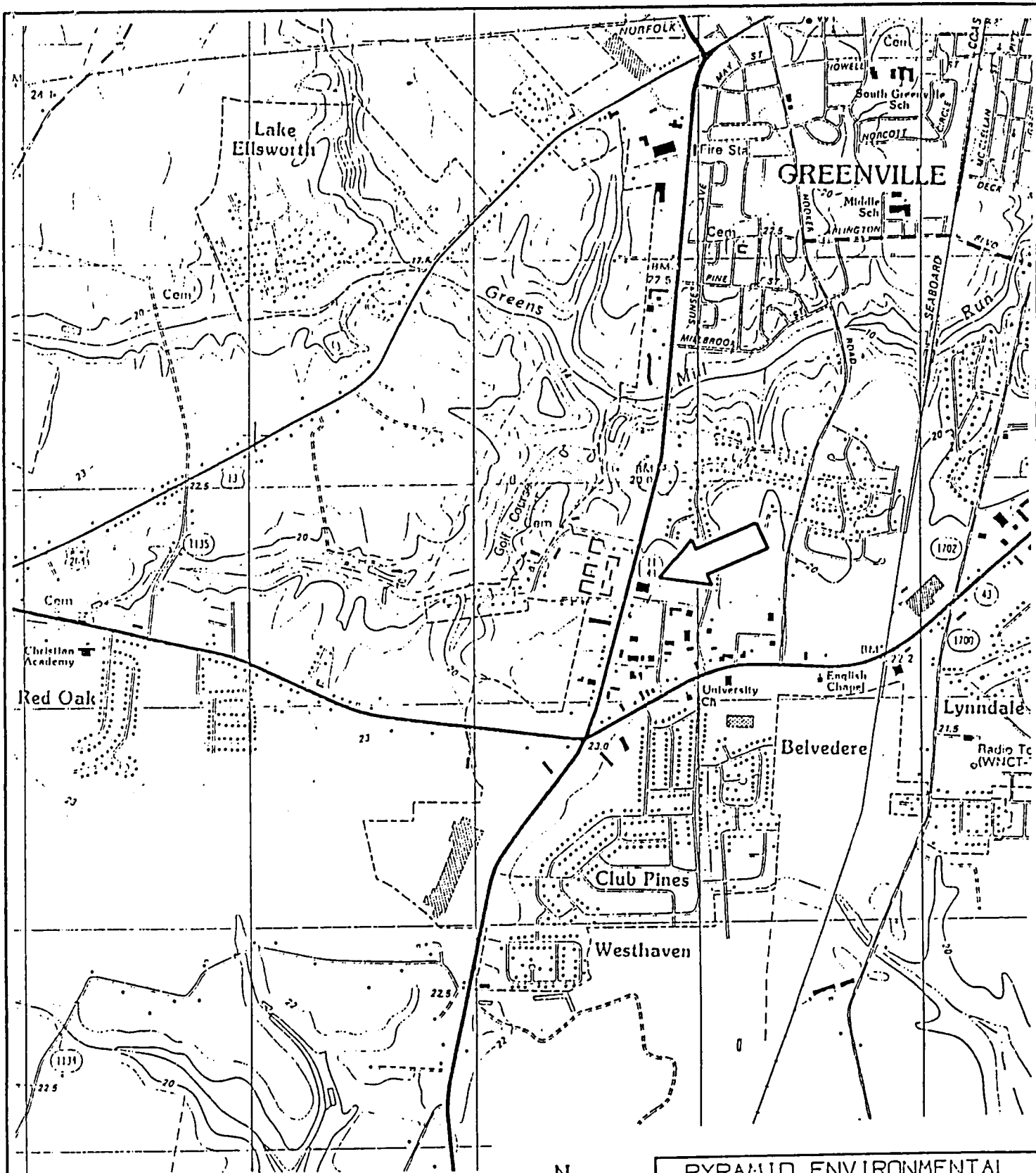
Figure 1



KEY	
A - 10,000 gal UST	(REMOVED)
B - 10,000 gal UST	(CLOSED IN PLACE)
C - 20,000 gal UST	(REMOVED)
D - 20,000 gal UST	(REMOVED)
SPA - Soil Stockpile	
SPB - Soil Stockpile	



Pyramid Environmental	
Fieldcrest Mill Greenville, NC	
Site Map	
June 1993	Figure 2



SCALE: 1" = 2000'

USGS Topographic Map
Greenville SW
SW/4 Winterville Quad.



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Fieldcrest Mill
Greenville, NC

Site Topographic Map

July, 1993

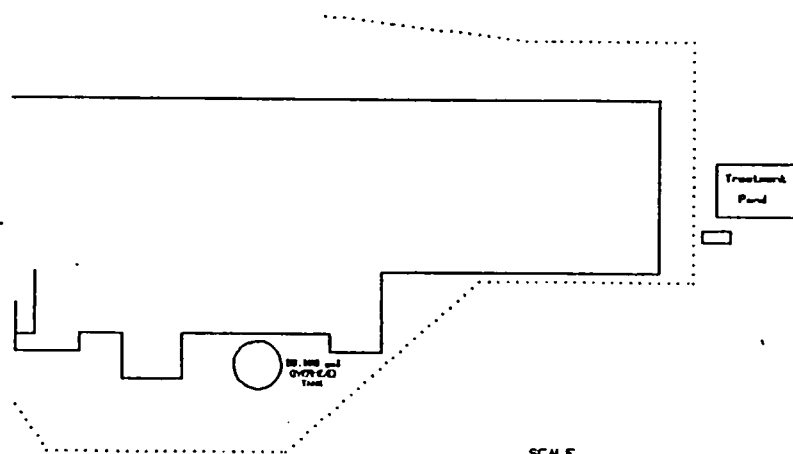
Figure 3

KEY

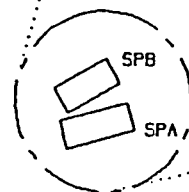
SPA } Soil Stockpiles from
SPB } Tank Excavations

● 3' — Locations of soil samples
composited to make samples
SPA and SPB.

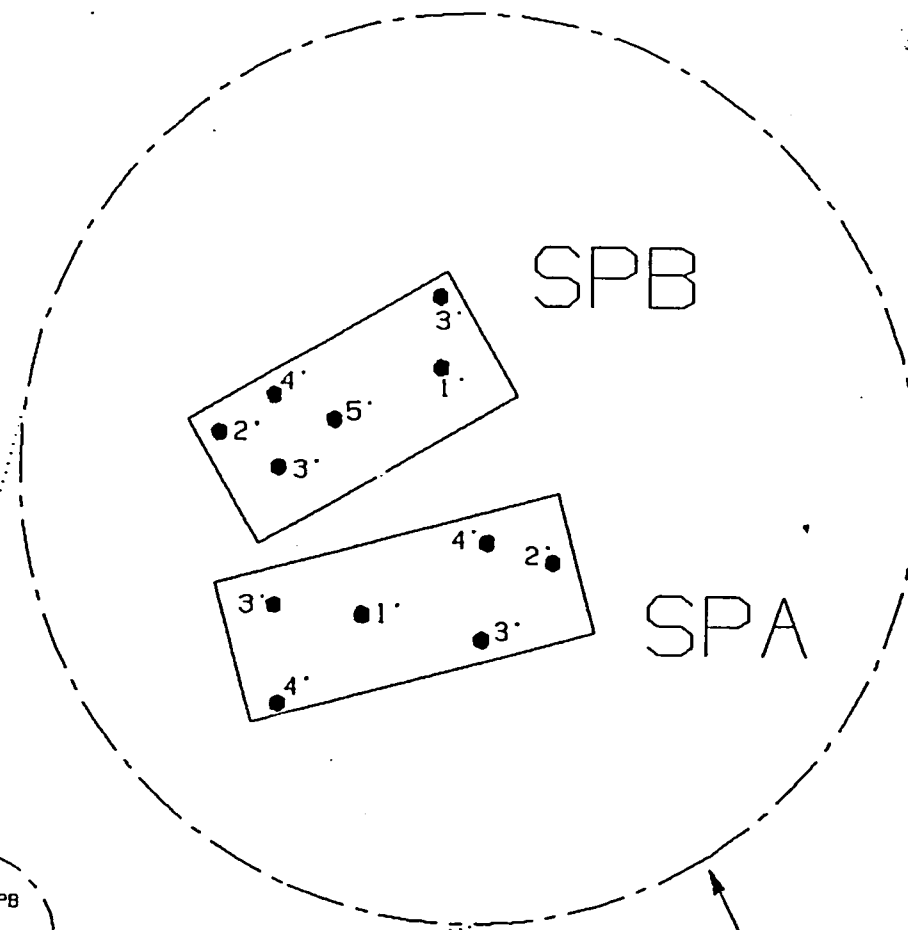
— Depth below top
of stockpile.



SCALE
0 20 40 60 80 100
FEET



APPROXIMATE NORTH



SCALE

0 10 20 30 40 50
FEET

Pyramid Environmental	
Fieldcrest Mill Greenville, NC	
Stockpile Sampling	
June 1993	Figure 4

KEY

A - 10,000 gal UST
(REMOVED)

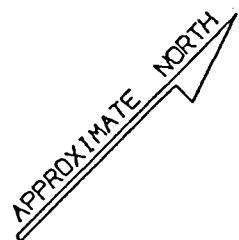
B - 10,000 gal UST
(CLOSED IN PLACE)

C - 20,000 gal UST
(REMOVED)

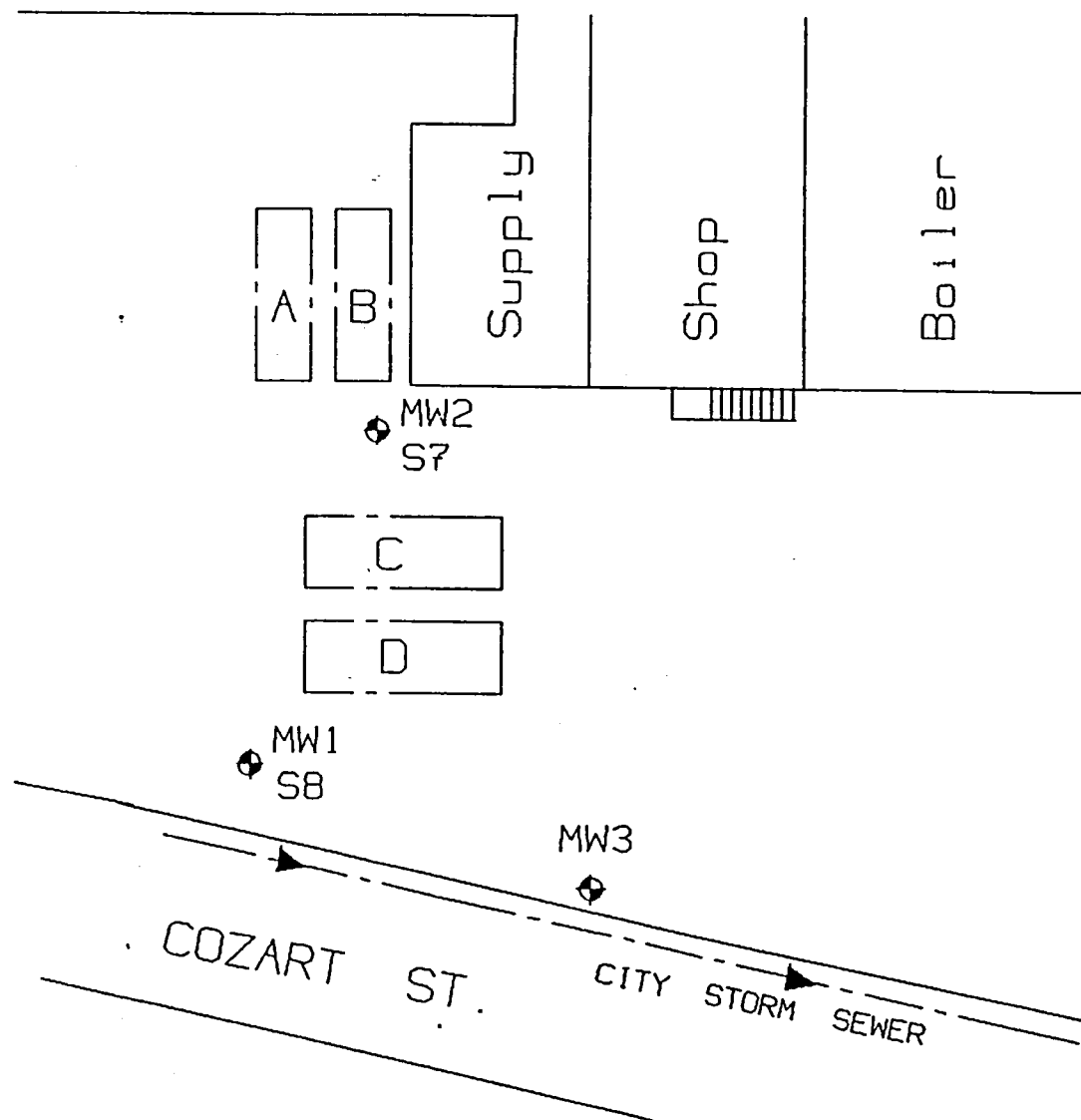
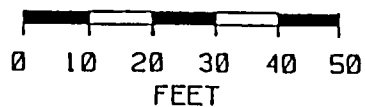
D - 20,000 gal UST
(REMOVED)

MW-1 Monitor Well

S8 Soil Sample



SCALE



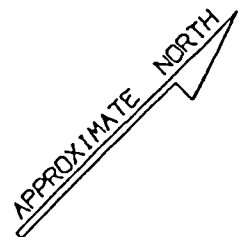
Pyramid Environmental	
Fieldcrest Mill Greenville, NC	
Boring Locations	
June 1993	Figure 5

KEY

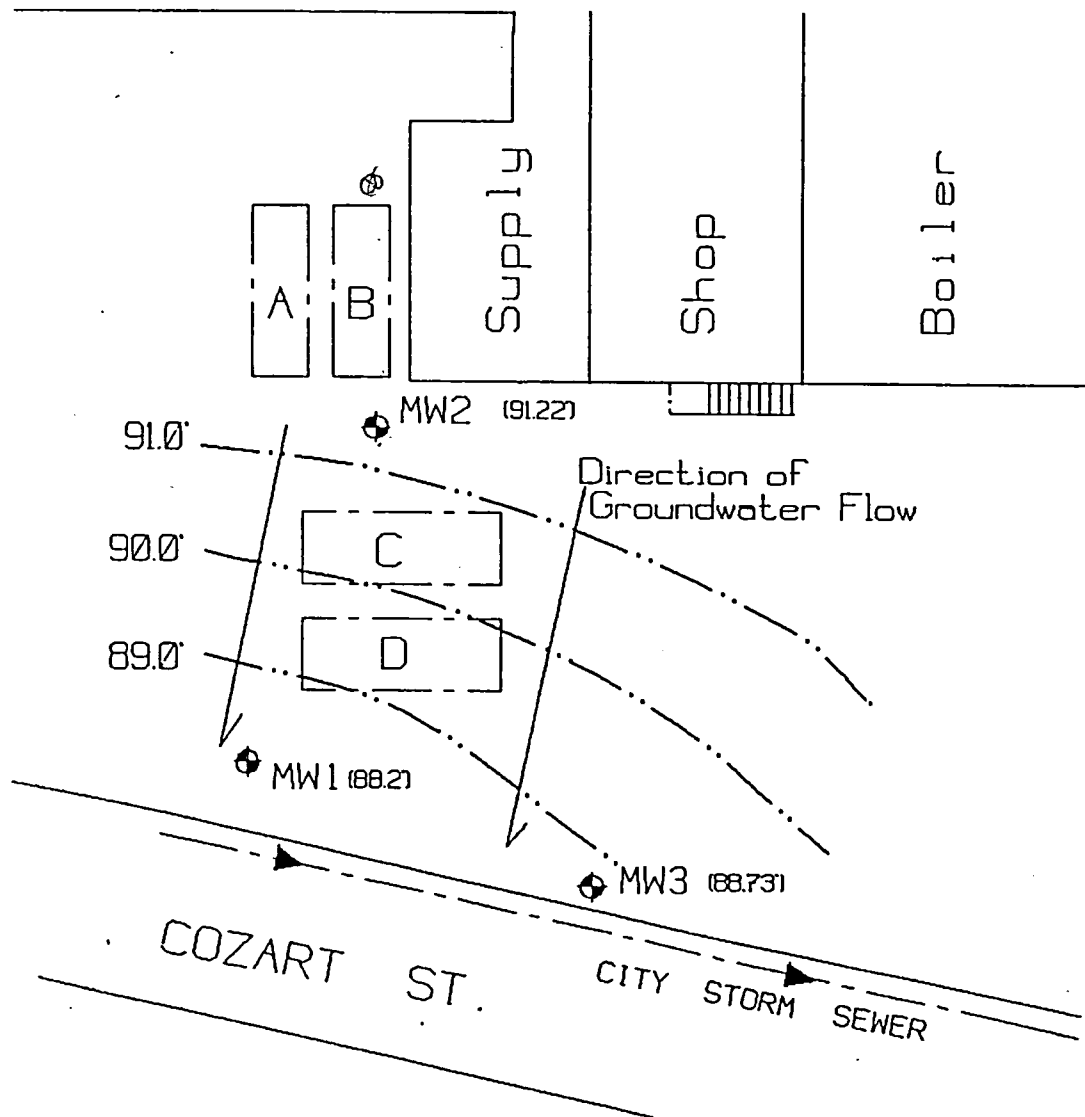
- A - 10,000 gal UST (REMOVED)
- B - 10,000 gal UST (CLOSED IN PLACE)
- C - 20,000 gal UST (REMOVED)
- D - 20,000 gal UST (REMOVED)

⊙ - Well Boring

--- Potentiometric Surface Contour Lines (1' intervals)



SCALE



Pyramid Environmental	
Fieldcrest Mill	
Greenville, NC	
Potentiometric Surface	
June 1993	Figure 6

APPENDIX I

**Laboratory Analyses
and
Chain of Custody Forms**

VI. Analytical Results

AnalytiKEM

Semivolatile Organics (Page 1 of 2)

Sample Designation

<u>Parameter</u>	<u>Method Blank 1</u>	<u>A83749-10 MW1</u>	<u>A83749-11 MW2</u>
N-Nitrosodimethylamine	10 U	10 U	10 U
Phenol	10 U	10 U	10 U
Bis(2-chloroethyl) Ether	10 U	10 U	10 U
2-Chlorophenol	10 U	10 U	10 U
1,3-Dichlorobenzene	10 U	10 U	10 U
1,4-Dichlorobenzene	10 U	10 U	10 U
1,2-Dichlorobenzene	10 U	10 U	10 U
2-Methylphenol	10 U	10 U	10 U
Bis(2-chloroisopropyl) Ether	10 U	10 U	10 U
4-Methylphenol	10 U	10 U	10 U
N-Nitrosodipropylamine	10 U	10 U	10 U
Hexachloroethane	10 U	10 U	10 U
Nitrobenzene	10 U	10 U	10 U
Isophorone	10 U	10 U	10 U
2-Nitrophenol	10 U	10 U	10 U
2,4-Dimethylphenol	10 U	10 U	10 U
Bis(2-chloroethoxy)methane	10 U	10 U	10 U
2,4-Dichlorophenol	10 U	10 U	10 U
1,2,4-Trichlorobenzene	10 U	10 U	10 U
Naphthalene	10 U	10 U	10 U
Hexachlorobutadiene	10 U	10 U	10 U
4-Chloro-3-methylphenol	10 U	10 U	10 U
Hexachlorocyclopentadiene	10 U	10 U	10 U
2,4,6-Trichlorophenol	10 U	10 U	10 U
2-Chloronaphthalene	10 U	10 U	10 U
Dimethyl Phthalate	10 U	10 U	10 U
Acenaphthylene	10 U	10 U	10 U
Acenaphthene	10 U	10 U	10 U
2,4-Dinitrophenol	50 U	50 U	50 U
Units	(ug/l)	(ug/l)	(ug/l)

VI. Analytical Results (Cont'd)**AnalytiKEM**Semivolatile Organics (Page 2 of 2)Sample Designation

<u>Parameter</u>	<u>Method</u>		<u>A83749-10</u>		<u>A83749-11</u>	
	<u>Blank 1</u>		<u>MW1</u>		<u>MW2</u>	
4-Nitrophenol	50	U	50	U	50	U
2,4-Dinitrotoluene	10	U	10	U	10	U
2,6-Dinitrotoluene	10	U	10	U	10	U
Diethyl Phthalate	10	U	10	U	10	U
4-Chlorophenyl Phenyl Ether	10	U	10	U	10	U
Fluorene	10	U	10	U	10	U
4,6-Dinitro-2-methylphenol	50	U	50	U	50	U
N-Nitrosodiphenylamine	10	U	10	U	10	U
4-Bromophenyl Phenyl Ether	10	U	10	U	10	U
Hexachlorobenzene	10	U	10	U	10	U
Pentachlorophenol	10	U	10	U	10	U
Phenanthrene	10	U	10	U	10	U
Anthracene	10	U	10	U	10	U
Dibutyl Phthalate	10	U	10		9.1	J
Fluoranthene	10	U	10	U	10	U
Benzidine	50	U	50	U	50	U
Pyrene	10	U	10	U	10	U
Butylbenzyl Phthalate	10	U	10	U	10	U
3,3'-Dichlorobenzidine	20	U	20	U	20	U
Benzo(a)anthracene	10	U	10	U	10	U
Bis(2-ethylhexyl) Phthalate	10	U	5.6	J	14	
Chrysene	10	U	10	U	10	U
Dioctyl Phthalate	10	U	10	U	10	U
Benzo(b)fluoranthene	10	U	10	U	10	U
Benzo(k)fluoranthene	10	U	10	U	10	U
Benzo(a)pyrene	10	U	10	U	10	U
Indeno(1,2,3-cd)pyrene	10	U	10	U	10	U
Dibenzo(a,h)anthracene	10	U	10	U	10	U
Benzo(g,h,i)perylene	10	U	10	U	10	U
Units	(ug/l)		(ug/l)		(ug/l)	

VI. Analytical Results (Cont'd)

AnalytiKEM

Semivolatile Organics (Page 1 of 2)

<u>Parameter</u>	<u>Sample Designation</u>	
	<u>Method</u> <u>Blank 1</u>	<u>A83749-12</u> <u>MW3</u>
N-Nitrosodimethylamine	10 U	10 U
Phenol	10 U	10 U
Bis(2-chloroethyl) Ether	10 U	10 U
2-Chlorophenol	10 U	10 U
1,3-Dichlorobenzene	10 U	10 U
1,4-Dichlorobenzene	10 U	10 U
1,2-Dichlorobenzene	10 U	10 U
2-Methylphenol	10 U	10 U
Bis(2-chloroisopropyl) Ether	10 U	10 U
4-Methylphenol	10 U	10 U
N-Nitrosodipropylamine	10 U	10 U
Hexachloroethane	10 U	10 U
Nitrobenzene	10 U	10 U
Isophorone	10 U	10 U
2-Nitrophenol	10 U	10 U
2,4-Dimethylphenol	10 U	10 U
Bis(2-chloroethoxy)methane	10 U	10 U
2,4-Dichlorophenol	10 U	10 U
1,2,4-Trichlorobenzene	10 U	10 U
Naphthalene	10 U	10 U
Hexachlorobutadiene	10 U	10 U
4-Chloro-3-methylphenol	10 U	10 U
Hexachlorocyclopentadiene	10 U	10 U
2,4,6-Trichlorophenol	10 U	10 U
2-Chloronaphthalene	10 U	10 U
Dimethyl Phthalate	10 U	10 U
Acenaphthylene	10 U	10 U
Acenaphthene	10 U	10 U
2,4-Dinitrophenol	50 U	50 U
Units	(ug/l)	(ug/l)

VI. Analytical Results (Cont'd)

Semivolatile Organics (Page 2 of 2)

AnalytiKEM

<u>Parameter</u>	<u>Sample Designation</u>	
	<u>Method</u> <u>Blank 1</u>	<u>A83749-12</u> <u>MW3</u>
4-Nitrophenol	50 U	50 U
2,4-Dinitrotoluene	10 U	10 U
2,6-Dinitrotoluene	10 U	10 U
Diethyl Phthalate	10 U	10 U
4-Chlorophenyl Phenyl Ether	10 U	10 U
Fluorene	10 U	10 U
4,6-Dinitro-2-methylphenol	50 U	50 U
N-Nitrosodiphenylamine	10 U	10 U
4-Bromophenyl Phenyl Ether	10 U	10 U
Hexachlorobenzene	10 U	10 U
Pentachlorophenol	10 U	10 U
Phenanthrene	10 U	10 U
Anthracene	10 U	10 U
Dibutyl Phthalate	10 U	11
Fluoranthene	10 U	10 U
Benzidine	50 U	50 U
Pyrene	10 U	10 U
Butylbenzyl Phthalate	10 U	10 U
3,3'-Dichlorobenzidine	20 U	20 U
Benzo(a)anthracene	10 U	10 U
Bis(2-ethylhexyl) Phthalate	10 U	7.7 J
Chrysene	10 U	10 U
Dioctyl Phthalate	10 U	10 U
Benzo(b)fluoranthene	10 U	10 U
Benzo(k)fluoranthene	10 U	10 U
Benzo(a)pyrene	10 U	10 U
Indeno(1,2,3-cd)pyrene	10 U	10 U
Dibenzo(a,h)anthracene	10 U	10 U
Benzo(g,h,i)perylene	10 U	10 U
Units	(ug/l)	(ug/l)

VI. Analytical Results (Cont'd)

AnalytiKEM

Semivolatile Organics (Page 1 of 2)

<u>Parameter</u>	<u>Sample Designation</u>	
	<u>Method</u> <u>Blank 2</u>	<u>A83749-10</u> <u>(Rerun)</u> <u>MW1</u>
N-Nitrosodimethylamine	10 U	10 U
Phenol	10 U	10 U
Bis(2-chloroethyl) Ether	10 U	10 U
2-Chlorophenol	10 U	10 U
1,3-Dichlorobenzene	10 U	10 U
1,4-Dichlorobenzene	10 U	10 U
1,2-Dichlorobenzene	10 U	10 U
2-Methylphenol	10 U	10 U
Bis(2-chloroisopropyl) Ether	10 U	10 U
4-Methylphenol	10 U	10 U
N-Nitrosodipropylamine	10 U	10 U
Hexachloroethane	10 U	10 U
Nitrobenzene	10 U	10 U
Isophorone	10 U	10 U
2-Nitrophenol	10 U	10 U
2,4-Dimethylphenol	10 U	10 U
Bis(2-chloroethoxy)methane	10 U	10 U
2,4-Dichlorophenol	10 U	10 U
1,2,4-Trichlorobenzene	10 U	10 U
Naphthalene	10 U	10 U
Hexachlorobutadiene	10 U	10 U
4-Chloro-3-methylphenol	10 U	10 U
Hexachlorocyclopentadiene	10 U	10 U
2,4,6-Trichlorophenol	10 U	10 U
2-Chloronaphthalene	10 U	10 U
Dimethyl Phthalate	10 U	10 U
Acenaphthylene	10 U	10 U
Acenaphthene	10 U	10 U
2,4-Dinitrophenol	50 U	50 U
Units	(ug/l)	(ug/l)

VI. Analytical Results (Cont'd)

Semivolatile Organics (Page 2 of 2)

AnalytiKEM

<u>Parameter</u>	<u>Sample Designation</u>		<u>A83749-10</u>	
	<u>Method</u>	<u>Blank 2</u>	<u>(Rerun)</u>	<u>MW1</u>
4-Nitrophenol	50	U	50	U
2,4-Dinitrotoluene	10	U	10	U
2,6-Dinitrotoluene	10	U	10	U
Diethyl Phthalate	10	U	10	U
4-Chlorophenyl Phenyl Ether	10	U	10	U
Fluorene	10	U	10	U
4,6-Dinitro-2-methylphenol	50	U	50	U
N-Nitrosodiphenylamine	10	U	10	U
4-Bromophenyl Phenyl Ether	10	U	10	U
Hexachlorobenzene	10	U	10	U
Pentachlorophenol	10	U	10	U
Phenanthrene	10	U	10	U
Anthracene	10	U	10	U
Dibutyl Phthalate	10	U	12	
Fluoranthene	10	U	10	U
Benzidine	50	U	50	U
Pyrene	10	U	10	U
Butylbenzyl Phthalate	10	U	10	U
3,3'-Dichlorobenzidine	20	U	20	U
Benzo(a)anthracene	10	U	10	U
Bis(2-ethylhexyl) Phthalate	3.2	J	8.1	J
Chrysene	10	U	10	U
Dioctyl Phthalate	10	U	10	U
Benzo(b)fluoranthene	10	U	10	U
Benzo(k)fluoranthene	10	U	10	U
Benzo(a)pyrene	10	U	10	U
Indeno(1,2,3-cd)pyrene	10	U	10	U
Dibenzo(a,h)anthracene	10	U	10	U
Benzo(g,h,i)perylene	10	U	10	U
Units	(ug/l)		(ug/l)	

V. Analytical Results (Cont'd)

EPA/NIH/NBS Nontargetted Library Search

No nontargetted compounds were detected in the following samples:

Method Blank 1
Method Blank 2

AnalytiKEM Designation A83749-10

Client Designation MW1

CAS Number	Compound Name	Fraction	Scan Number	Estimated Concentration (ug/l)
	Unknown Compound	BNA	1292	13
	Unknown 1,1-Dimethylethyl Phenol Isomer	BNA	1771	9.0
57-10-3	Hexadecanoic Acid	BNA	2463	19
	Unknown Carboxylic Acid	BNA	2727	12
	Unknown Primary Alcohol	BNA	3117	24
	Unknown Compound	BNA	3130	20

AnalytiKEM Designation A83749-10 (Rerun)

Client Designation MW1

CAS Number	Compound Name	Fraction	Scan Number	Estimated Concentration (ug/l)
65-85-0	Benzoic Acid	BNA	1079	2.7
	Unknown Compound	BNA	1262	13
	Unknown 1,1-Dimethylethyl Phenol Isomer	BNA	1739	18
57-10-3	Hexadecanoic Acid	BNA	2430	51
	Unknown Carboxylic Acid	BNA	2693	34
	Unknown Compound	BNA	3081	28

Note: Estimated concentration is calculated against the nearest eluting internal standard.

V. Analytical Results (Cont'd)EPA/NIH/NBS Nontargetted Library SearchAnalytiKEM Designation A83749-11Client Designation MW2

CAS Number	Compound Name	Fraction	Scan Number	Estimated Concentration (ug/l)
57-10-3	Hexadecanoic Acid	BNA	2466	23
	Unknown Compound	BNA	2630	11
	Unknown Carboxylic Acid	BNA	2730	19
80-07-9	1,1-Sulfonyl bis[4-Chlorobenzene	BNA	2870	9.0
	Unknown Hydrocarbon	BNA	3119	16
	Unknown Compound	BNA	3254	44

AnalytiKEM Designation A83749-12Client Designation MW3

CAS Number	Compound Name	Fraction	Scan Number	Estimated Concentration (ug/l)
57-10-3	Hexadecanoic Acid	BNA	2468	32
	Unknown Carboxylic Acid	BNA	2732	22
	Unknown Compound	BNA	3120	22
	Unknown Compound	BNA	3133	12
	Unknown Hydrocarbon	BNA	3409	10

Note: Estimated concentration is calculated against the nearest eluting internal standard.

VI. Analytical Results (Cont'd)

General Chromatography

<u>Parameter</u>	<u>Method</u> <u>Blank</u>	<u>Sample Designation</u>		
		<u>A83749-10</u> <u>MW1</u>	<u>A83749-11</u> <u>MW2</u>	<u>A83749-12</u> <u>MW3</u>
Benzene	1.0 U	1.0 U	0.76 J	1.0 U
Toluene	0.62 J	1.0 U	1.0 U	1.0 U
Chlorobenzene	1.0 U	1.0 U	1.0 U	1.0 U
Ethylbenzene	1.0 U	1.0 U	0.61 J	1.0 U
m-Xylene	1.0 U	1.0 U	1.0 U	1.0 U
o-Xylene p-Xylene	1.0 U	1.0 U	1.0 U	1.0 U
1,3-Dichlorobenzene	1.0 U	1.0 U	1.0 U	1.0 U
1,2-Dichlorobenzene	1.0 U	1.0 U	1.0 U	1.0 U
1,4-Dichlorobenzene	1.0 U	1.0 U	1.0 U	1.0 U
Units	(ug/l)	(ug/l)	(ug/l)	(ug/l)

VI. Analytical Results (Cont'd)

General Chemistry

Sample Designation

<u>Parameter</u>	<u>Method</u> <u>Blank</u>	A83749-1 <u>S1</u>	A83749-2 <u>S2</u>
Oil and Grease	--	29,000,000	10,000 U
Units	(ug/kg)	(ug/kg)	(ug/kg)

Sample Designation

<u>Parameter</u>	<u>Method</u> <u>Blank</u>	A83749-3 <u>S3</u>	A83749-4 <u>S4</u>
Oil and Grease	--	58,000	29,000
Units	(ug/kg)	(ug/kg)	(ug/kg)

Sample Designation

<u>Parameter</u>	<u>Method</u> <u>Blank</u>	A83749-5 <u>S5.2</u>	A83749-6 <u>S7</u>
Oil and Grease	--	10,000 U	10,000 U
Units	(ug/kg)	(ug/kg)	(ug/kg)

Sample Designation

<u>Parameter</u>	<u>Method</u> <u>Blank</u>	A83749-7 <u>S-8</u>	A83749-8 <u>SPA</u>	A83749-9 <u>SPB</u>
Oil and Grease	--	10,000 U	880,000	88,000
Units	(ug/kg)	(ug/kg)	(ug/kg)	(ug/kg)

Pyramid Environmental

2705 Pineblade Road
Greensboro, NC
(919) 292-3030

Chain of Custody Record

Page 1 of 1

83749

Project: FC-Greenville, NC

Sampler's Signature: [Signature]

of
containers

9071

602

625

Sample ID	Date	Time	Comments / Gals	Station	# of containers	Remarks
S1	6/9	12:05 pm	✓		1	✓
S2	6/9	12:40 pm	✓		1	✓
S3	6/9	11:10 am	✓		1	✓
S4	6/9	11:40 pm	✓		1	✓
S5.2	6/9	7:15 pm	✓		1	✓
S7	6/9	5:00 pm	✓		1	✓
S8	6/9	3:45 pm	✓		1	✓
SPA	6/10	1:00 pm	✓	composite	1	✓
SPB	6/10	1:30 pm	✓	composite	1	✓
MW1	6/10	12:45 pm			5	✓ ✓
MW2	6/10	10:00 am			5	✓ ✓
MW3	6/10	12:05 pm			5	✓ ✓

Received by: <u>[Signature]</u>	Date/Time: <u>6/11/93 1430</u>	Received by: <u>Scott Long</u>	Received by: <u>Scott Long</u>	Date/Time: <u>6/11/93 1730</u>	Received by: <u>[Signature]</u>
Received by:	Date/Time:	Received by:	Received by:	Date/Time:	Received by:
Remarks:					

APPENDIX II

Well Construction Diagrams

and

Groundwater Sampling Field Notes

PYRAMID ENVIRONMENTAL, INC.
Environmental Consultants

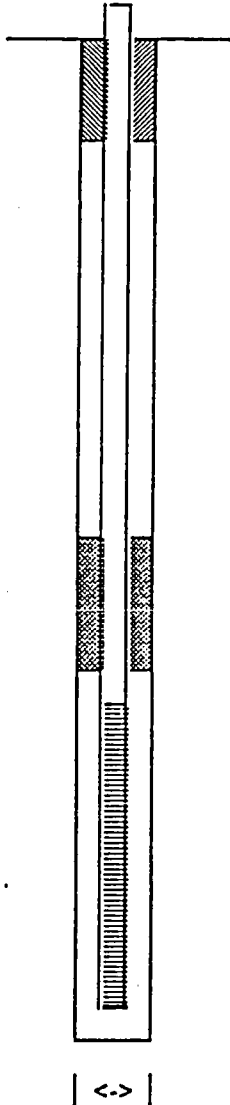
MONITORING WELL CONSTRUCTION DIAGRAM

Location EC GREENVILLE

Date 09 JUN 73

Source/Well MW-1

Installer DAACO

Type of Surface Seal		<u>Permeal Grout</u>
Thickness of Surface Seal		<u>2.5'</u>
Type of Riser		<u>PVC</u>
Diameter of Riser		<u>2"</u>
Length of Riser		<u>5'</u>
Type of Backfill		<u>Grout</u>
Type of Seal		<u>Sealant</u>
Thickness of Seal		<u>2'</u>
Type of Filter Sand		<u>well sorted fine</u>
Thickness of Sand Fill		<u>1 1/2' (11.5')</u>
Length of Screen		<u>17'</u>
Size of Screen Openings		<u>0.010"</u>
Total Depth of Well		<u>16'</u>
Diameter of Borehole		<u>6"</u>

*5 - 13' increasing clayey sand until 13' → clay
(13-15' tan clay) (15' → 20' gray clay)*

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MONITORING WELL CONSTRUCTION DIAGRAM

Location	<u>EC Greenville</u>	Date	<u>09 JUN 93</u>
Source/Well	<u>MW 2</u>	Installer	<u>DAACO</u>
Type of Surface Seal		<u>Cement Grout</u>	
Thickness of Surface Seal		<u>2.2'</u>	
Type of Riser		<u>PVC</u>	
Diameter of Riser		<u>2"</u>	
Length of Riser		<u>7'</u>	
Type of Backfill		<u>Grout</u>	
Type of Seal		<u>Bentonite</u>	
Thickness of Seal		<u>2'</u>	
Type of Filter Sand		<u>Fine, well-sorted</u>	
Thickness of Sand Fill		<u>11.3'</u>	
Length of Screen		<u>10'</u>	
Size of Screen Openings		<u>0.010"</u>	
Total Depth of Well		<u>17.5'</u>	
Diameter of Borehole		<u>6"</u>	

Boring Log: 0-1' asphalt, fill material
1-14' tan to brown clay
15-20' gray clay

PYRAMID ENVIRONMENTAL, INC.
Environmental Consultants

MONITORING WELL CONSTRUCTION DIAGRAM

Location FC GREENVILLE

Date 09 JUN 93

Source/Well MW-3

Installer DANCO

Type of Surface Seal

Cement Grout

Thickness of Surface Seal

2'

Type of Riser

PVC

Diameter of Riser

2"

Length of Riser

4'

Type of Backfill

Grout

Type of Seal

Pentonite

Thickness of Seal

1.5'

Type of Filter Sand

Well-sorted, fine

Thickness of Sand Fill

11.5'

Length of Screen

10'

Size of Screen Openings

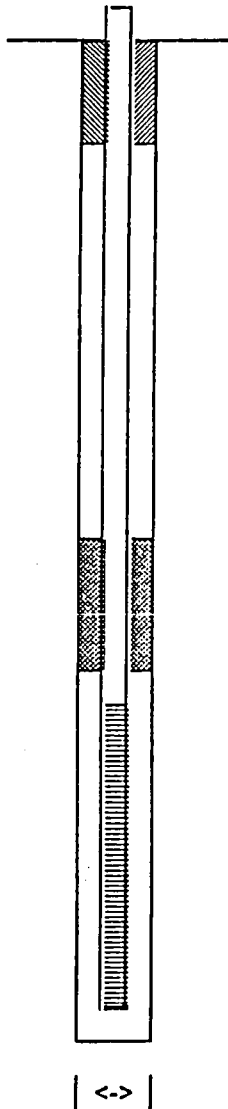
0.010"

Total Depth of Well

15'

Diameter of Borehole

6"



Boiling Log - 0-1' asphalt, fill material
1-9' tan to brown clay
9-15' grey clay

PYRAMID ENVIRONMENTAL, INC.
Environmental Consultants

GROUNDWATER SAMPLING FIELD DATA

Location EC Greenville

Date 10 Jun 93

Source/Well MW1

Time 1145 to 1235

Sampled by ASP

Weather Hot Sunny

GROUNDWATER ELEVATION

- | | |
|--|------------------|
| 1) Depth to water from measuring point | <u>6.32</u> ft. |
| 2) Depth to well bottom from measuring point | <u>15.04</u> ft. |
| 3) Height of water column | <u>8.72</u> ft. |
| 4) Measuring point description | <u>TOC</u> |

WELL PURGING AND SAMPLE COLLECTION

- | | |
|--|-----------------|
| 1) Volume of water in well | |
| a) 2" well....($v = 0.163 \times h$) | |
| b) 4" well....($v = 0.651 \times h$) | <u>1.4</u> gal. |
| 2) Volume of water removed prior to sampling | <u>5</u> gal. |
| 3) Was well pumped DRY? (circle one) | YES NO |

FIELD ANALYSIS

- | | |
|---------------------------------|-----------------------------------|
| 1) Temperature | <u> </u> |
| 2) Specific Conductance | <u> </u> |
| 3) pH | <u> </u> |
| 4) Physical Appearance and Odor | <u>cloudy, some silt; no odor</u> |

PYRAMID ENVIRONMENTAL, INC.
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GROUNDWATER SAMPLING FIELD DATA

Location Fe 3rd & 4th

Date 12 June 98

Source/Well MW12

Time 1000 to 1045

Sampled by J.P.

Weather Hot Sunny

GROUNDWATER ELEVATION

- 1) Depth to water from measuring point 5.26 ft.
- 2) Depth to well bottom from measuring point 17.30 ft.
- 3) Height of water column 12.04 ft.
- 4) Measuring point description T03

WELL PURGING AND SAMPLE COLLECTION

- 1) Volume of water in well
- a) 2" well....($v = 0.163 \times h$)
- b) 4" well....($v = 0.651 \times h$)
- 2) Volume of water removed prior to sampling 7 gal.
- 3) Was well pumped DRY? (circle one) YES NO

FIELD ANALYSIS

- 1) Temperature
- 2) Specific Conductance
- 3) pH
- 4) Physical Appearance and Odor cloudy (grey - no visible particles (1.5));
no odor

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Environmental Consultants

GROUNDWATER SAMPLING FIELD DATA

Location 10 Greenfield

Date 10 Jun 95

Source/Well 11/12

Time 1120 to 1205

Sampled by CVB

Weather Hot Sunny

GROUNDWATER ELEVATION

- 1) Depth to water from measuring point 1.47 ft.
- 2) Depth to well bottom from measuring point 14.14 ft.
- 3) Height of water column 9.93 ft.
- 4) Measuring point description TD

WELL PURGING AND SAMPLE COLLECTION

- 1) Volume of water in well
- a) 2" well....($v = 0.163 \times h$)
- b) 4" well....($v = 0.651 \times h$)
- 2) Volume of water removed prior to sampling 5 gal.
- 3) Was well pumped DRY? (circle one) YES NO

FIELD ANALYSIS

- 1) Temperature —
- 2) Specific Conductance —
- 3) pH —
- 4) Physical Appearance and Odor cloudy, some silt, none

Pyramid Environmental, Inc.

Boring Log

Project: Fieldcrest Greenville, NC, Plant

Date Started: 6/9/93

Elevation:

Driller: DAACO, Inc.

Date Completed: 6/9/93

Boring Number: 5

Location: Karastan Bigelow Plant

GW Depth: 9'; Total Boring Depth 11'

Sampling Method: Hand Auger

Drilling Method: Power hollow stem auger 6 1/4"

Sample ID	Depth (Feet)	Blows per 6"	Recover %	USCS Class	Material Description	Collection Time Date	Comments
S5-1	5			GP	gravel/sand fill material		OVA not taken
S5-2	11			CH	clayey sand w/gravel (mostly fill material)	7:15 9-Jun-93	(Moisture in probe)
					Total Depth = 11'		

Boring Log

Project: Fieldcrest Greenville, NC, Plant

Date Started: 6/9/93

Elevation:

Driller: DAACO, Inc.

Date Completed: 6/9/93

Boring Number: MW-1

Location: Karastan Bigelow Plant

GW Depth: 10'; Total Boring Depth 20'

Sampling Method: Hand Auger

Drilling Method: Power hollow stem auger 6 1/4"

Sample ID	Depth (Feet)	Blows per 6"	Recover %	USCS Class	Material Description	Collection Time Date	Comments
S-8	0-1			GP	asphalt/fill		
	1-13			SC - CH	increasingly more clayey sand		
	13-15			CH	tan clay, very plastic		
	15-20			CH	grey clay	3:45	
	20			CH	wet dark grey clay	9-Jun-93	Not Tested
					Total Depth = 20'		

Boring Log

Project: Fieldcrest Greenville, NC, Plant

Date Started: 6/9/93

Elevation:

Driller: DAACO, Inc.

Date Completed: 6/9/93

Boring Number: MW-2

Location: Karastan Bigelow Plant

GW Depth: 10'; Total Boring Depth 20'

Sampling Method: Hand Auger

Drilling Method: Power hollow stem auger 6 1/4"

Sample ID	Depth (Feet)	Blows per 6"	Recover %	USCS Class	Material Description	Collection Time Date	Comments
S-6	0-1			GP	asphalt/fill		
	1-14			CH	tan to brown clay		
	11			CH	plastic tan/brown clay		Not Tested
	14-20			CH	grey clay	5:00	
S-7	20			CH	wet dark grey clay	9-Jun-93	Not Tested
					Total Depth = 20'		

Boring Log

Project: Fieldcrest Greenville, NC, Plant

Date Started: 6/9/93

Elevation:

Driller: DAACO, Inc.

Date Completed: 6/9/93

Boring Number: MW-3

Location: Karastan Bigelow Plant

GW Depth: 10'; Total Boring Depth 15'

Sampling Method: Hand Auger

Drilling Method: Power hollow stem auger 6 1/4"

Sample ID	Depth (Feet)	Blows per 6"	Recover %	USCS Class	Material Description	Collection Time Date	Comments
	0-1			GP	asphalt/fill material		
	1-9			CH	tan to brown clay		Not Tested
	9-15			CH	grey clay	9-Jun-93	
					Total Depth = 15'		

Pyramid Environmental, Inc.

Boring Log

Project: Fieldcrest Greenville, NC, Plant

Date Started: 6/9/93

Elevation:

Driller: DAACO, Inc.

Boring Number: 1

Location: Karastan Bigelow Plant

GW Depth: 10'; Total Boring Depth 11'

Date Completed: 6/9/93

Sampling Method: Hand Auger

Drilling Method: Power hollow stem auger 6 1/4"

Sample ID	Depth (Feet)	Blows per 6"	Recover %	USCS Class	Material Description	Collection Time Date	Comments
S-1	11'			CH	Thick plastic grey clay	12:05 9-Jun-93	OVA=109 ppm
Total Depth = 11'							

Boring Log

Project: Fieldcrest Greenville, NC, Plant

Date Started: 6/9/93

Elevation:

Driller: DAACO, Inc.

Boring Number: 2

Location: Karastan Bigelow Plant

GW Depth: 10'; Total Boring Depth 10'

Date Completed: 6/9/93

Sampling Method: Hand Auger

Drilling Method: Power hollow stem auger 6 1/4"

Sample ID	Depth (Feet)	Blows per 6"	Recover %	USCS Class	Material Description	Collection Time Date	Comments
S-2X	5			GP	Backfill- sand and gravel		OVA not taken
S-2	10			CH	very plastic grey/tan clay	12:40 9-Jun-93	(Moisture in probe)
Total Depth = 11'							

Boring Log

Project: Fieldcrest Greenville, NC, Plant

Date Started: 6/9/93

Elevation:

Driller: DAACO, Inc.

Boring Number: 3

Location: Karastan Bigelow Plant

GW Depth: 9'; Total Boring Depth 10'

Date Completed: 6/9/93

Sampling Method: Hand Auger

Drilling Method: Power hollow stem auger 6 1/4"

Sample ID	Depth (Feet)	Blows per 6"	Recover %	USCS Class	Material Description	Collection Time Date	Comments
S-3X	7			SC	Brown/tan clayey sand		OVA = 129 ppm
S-3	10			CH	moist tan clay	1:10 9-Jun-93	
Total Depth = 10'							

Boring Log

Project: Fieldcrest Greenville, NC, Plant

Date Started: 6/9/93

Elevation:

Driller: DAACO, Inc.

Boring Number: 4

Location: Karastan Bigelow Plant

GW Depth: 9'; Total Boring Depth 10'

Date Completed: 6/9/93

Sampling Method: Hand Auger

Drilling Method: Power hollow stem auger 6 1/4"

Sample ID	Depth (Feet)	Blows per 6"	Recover %	USCS Class	Material Description	Collection Time Date	Comments
S-4X	5			SC	Brown clayey sand		OVA=11 ppm
S-4	10			CH	brown clayey sand mixed with gravel	1:40 9-Jun-93	OVA=11 ppm
Total Depth = 10'							

APPENDIX III

Site Sensitivity Evaluation Forms

Site Sensitivity Evaluation (SSE)

Site Characteristics Evaluation (Step 1)

Characteristic	Condition	Rating	
Grain Size*	Gravel Sand Silt <u>Clay</u>	150 100 50 0	<u>X</u>
Are relict structures, sedimentary structures, and/or textures present in the zone of contamination and underlying "soils"?	Present and intersecting the water table. Present but <u>not</u> intersecting the water table. <u>None present.</u>	10 5 0	<u>X</u>
Distance from location of deepest contaminated soil** to water table.	<u>0 - 5 feet</u> (C, D & E sites only) 5 - 10 feet >10 - 40 feet > 40 feet	20 20 10 0	<u>2 X</u>
Is the top of bedrock or transmissive indurated sediments located above the water table?	Yes <u>No</u>	20 0	<u>X</u>
Artificial conduits present within the zone of contamination.	Present and intersecting the water table. Present but <u>not</u> intersecting the water table. Not present.	10 5 <u>0</u>	<u>X</u>

Total Site Characteristics Score:

2 X

* Predominant grain size based on Unified Soil Classification System or U.S. Dept. of Agriculture's Soil Classification Method.

** (>10 ppm TPFH by Method 5030; >40 ppm TPFH by Method 3550; >250 ppm O&G by Method 9071)

Table 2

Site Sensitivity Evaluation (SSE)

Initial Cleanup Level
(Step 2)

Final Cleanup Level
(Step 3)

EPA Method 5030 for Low Boiling Point Hydrocarbons such as Gasoline, Aviation Fuels, Gasohol

Total Site Characteristics Score	Initial Cleanup Level TPFH (ppm)		Category A & B (Multiply Initial cleanup level by 1)	Final Cleanup Level
>150	≤10	Select Site Category* →	1 x _____ = _____ ppm	
121-150	20		Category C & D (Multiply Initial cleanup level by 2)	
91-120	40		2 x _____ = _____ ppm	
61-90	60		Category E (Multiply Initial cleanup level by 3)	
31-60	80		3 x _____ = _____ ppm	
0-30	100			

EPA Method 3550 for High Boiling Point Hydrocarbons such as Kerosene, Diesel, Varsol, Mineral Spirits, Naphtha

Total Site Characteristics Score	Initial Cleanup Level TPFH (ppm)		Category A & B (Multiply Initial cleanup level by 1)	Final Cleanup Level
>150	≤40	Select Site Category* →	1 x _____ = _____ ppm	
121-150	80		Category C & D (Multiply Initial cleanup level by 2)	
91-120	160		2 x _____ = _____ ppm	
61-90	240		Category E (Multiply Initial cleanup level by 3)	
31-60	320		3 x _____ = _____ ppm	
0-30	400			

EPA Method 9071 for Heavy Fuels - Oil & Grease (O&G) such as Fuel Oil #4, #5, #6, Motor Oil, Hydraulic Fluid

Total Site Characteristics Score	Initial Cleanup Level O&G (ppm)		Category A & B (Multiply Initial cleanup level by 1)	Final Cleanup Level
>150	≤250	Select Site Category* →	1 x _____ = _____ ppm	
121-150	400		Category C & D (Multiply Initial cleanup level by 2)	
91-120	550		2 x _____ = _____ ppm	
61-90	700		Category E (Multiply Initial cleanup level by 3)	
31-60	850		3 x <u>1800</u> = <u>3800</u> ppm	
0-30	1000			

* See Site Category Descriptions, Table 3

3/10/93

TABLE 3

SSE SITE CATEGORY DESCRIPTIONS

CATEGORY A (*Site meets any one of the criteria*)

1. Water supply well(s) contaminated and not served by accessible public water supply.
2. Vapors present in confined areas at explosive or health concern levels.
3. Treated surface water supply in violation of the safe drinking water standards.

CATEGORY B (*Site meets any one of the criteria*)

1. Water supply well(s) contaminated, but served by accessible public water supply.
2. Water supply well(s) within 1500 feet of site, but not contaminated and not served by accessible public water supply.
3. Vapors present in confined areas but not at explosive or health concern levels.

CATEGORY C (*Site meets both of the criteria*)

1. No known water supply well(s) contaminated.
2. Water supply well(s) greater than 1500 feet from site but not served by accessible public water supply.

CATEGORY D (*Site meets both of the criteria*)

1. No known water supply well(s) contaminated.
2. Water supply well(s) within 1500 feet of site but served by accessible public water supply.

CATEGORY E (*Site meets both of the criteria*)

1. No known water supply well(s) contaminated or within 1500 feet of site.
2. Area served by accessible public water supply.

APPENDIX IV

Results of Method 625 Analysis

**ANALYSIS: BASE/NEUTRAL
EXTRACTABLE ORGANICS**

EPA METHOD #: 625

SAMPLING DATE: June 10, 1993

Test Parameter	MW -1	MW -1 Rerun	MW -2	MW -3	State Max. Allowable (1)
Acenaphthene	ND	ND	ND	ND	NSL
Acenaphthylene	ND	ND	ND	ND	NSL
Anthracene	ND	ND	ND	ND	NSL
Benzidine	ND	ND	ND	ND	NSL
Benz (a) Anthracene	ND	ND	ND	ND	NSL
Benzo (A) Pyrene	ND	ND	ND	ND	NSL
Benzo (b) Fluoranthene	ND	ND	ND	ND	NSL
Benzo (ghi) Perylene	ND	ND	ND	ND	NSL
Benzo (k) Fluoranthene	ND	ND	ND	ND	NSL
Benzyl Butyl Phthalate	ND	ND	ND	ND	NSL
Bis (2-Chloroethoxy) Methane	ND	ND	ND	ND	NSL
Bis (2-Chloroethyl) Ether	ND	ND	ND	ND	NSL
Bis (2-Chloroisopropyl) Ether	ND	ND	ND	ND	NSL
Bis (2-Ethylhexyl) Phthalate	BDL	BDL	14	BDL	NSL
4-Bromophenyl Phenyl Ether	ND	ND	ND	ND	NSL
2-Chloronaphthalene	ND	ND	ND	ND	NSL
4-Chlorophenyl Phenyl Ether	ND	ND	ND	ND	NSL
Chrysene	ND	ND	ND	ND	NSL
Dibenz (a,h) Anthracene	ND	ND	ND	ND	NSL
1,2-Dichlorobenzene	ND	ND	ND	ND	NSL
1,3-Dichlorobenzene	ND	ND	ND	ND	NSL
1,4-Dichlorobenzene	ND	ND	ND	ND	NSL
3,3'-Dichlorobenzidine	ND	ND	ND	ND	NSL
Diethyl Phthalate	ND	ND	ND	ND	NSL
Dimethyl Phthalate	ND	ND	ND	ND	NSL
Dibutyl Phthalate	10	12	BDL	11	NSL
2,4-Dinitrotoluene	ND	ND	ND	ND	NSL
2,6-Dinitrotoluene	ND	ND	ND	ND	NSL
1,2-Diphenylhydrazine	ND	ND	ND	ND	NSL
Di-N-Octylphthalate	ND	ND	ND	ND	NSL
Fluoranthene	ND	ND	ND	ND	NSL
Fluorene	ND	ND	ND	ND	NSL
Hexachlorobenzene	ND	ND	ND	ND	0.02
Hexachlorobutadiene	ND	ND	ND	ND	NSL
Hexachlorocyclopentadiene	ND	ND	ND	ND	NSL
Hexachloroethane	ND	ND	ND	ND	NSL
Indeno (1,2,3-CD) Pyrene	ND	ND	ND	ND	NSL

EPA 625, CONTINUED

Isophorone	ND	ND	ND	ND	NSL
Naphthalene	ND	ND	ND	ND	NSL
Nitrobenzene	ND	ND	ND	ND	NSL
N-Nitrosodimethylamine	ND	ND	ND	ND	NSL
N-Nitrosos-Di-N-Propylamine	ND	ND	ND	ND	NSL
N-Nitrosodiphenylamine	ND	ND	ND	ND	NSL
Phenanthrene	ND	ND	ND	ND	NSL
Pyrene	ND	ND	ND	ND	NSL
1,2,4-Trichlorobenzene	ND	ND	ND	ND	NSL
Demeton	ND	ND	ND	ND	NSL

ANALYSIS: ACID EXTRACTABLE ORGANICS

EPA METHOD: 625

SAMPLING DATE: June 10, 1993

Test Parameter	MW - 1	MW-1 Rerun	MW - 2	MW - 3	State Max. Allowable (1)
4-Chloro-3-Methylphenol (p-Chloro-m-Cresol)	ND	ND	ND	ND	NSL
2-Chlorophenol	ND	ND	ND	ND	0.1
2,4-Dichlorophenol	ND	ND	ND	ND	NSL
2,4-Dimethylphenol	ND	ND	ND	ND	NSL
2,4-Dinitrophenol	ND	ND	ND	ND	NSL
2-Methyl-4,6-Dinitrophenol (4,6-Dinitro-o-Cresol)	ND	ND	ND	ND	NSL
2-Nitrophenol	ND	ND	ND	ND	NSL
4-Nitrophenol	ND	ND	ND	ND	NSL
Pentachlorophenol	ND	ND	ND	ND	220
Phenol	ND	ND	ND	ND	NSL
2,4,6-Trichlorophenol	ND	ND	ND	ND	NSL

Note: Concentration in Parts per Billion

(1)NCAC Title 15, Subchapter 2L

ND = None Detected

NSL = No State Limit

EPA/NIH/NBS Nontargetted Library Search
Unidentified peaks from EPA Method 625 Analysis

Well #	MW - 1	MW-1 Rerun	MW - 2	MW - 3
Estimated Concentration (µg/l)				
Compound:				
Hexadecanoic Acid	19	32	23	32
Unknown Carboxylic Acid	12	22	19	22
Benzoic Acid	ND	2.7	ND	ND
1,1-Sulfonyl bis[4-Chlorobenzene	ND	ND	9	ND
Unknown 1,1-Dimethylethyl Phenol Isomer	9	18	ND	ND
Unknown Primary Alcohol	24	ND	ND	ND
Unknown Hydrocarbon	ND	10	16	10
Unknown Compound	13	13	11	22
Unknown Compound	20	28	44	12

Note: Unknown compounds are not necessarily the same in each sample.

ND = None Detected